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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,164	04/18/2001	Laura R. Darden	BU9-98-118CONT	7963
29154	7590	10/15/2003		
FREDERICK W. GIBB, III MCGINN & GIBB, PLLC 2568-A RIVA ROAD SUITE 304 ANNAPOLIS, MD 21401			EXAMINER THOMPSON, ANNETTE M	
			ART UNIT 2825	PAPER NUMBER

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/836,164

Applicant(s)

DARDEN, LAURA R.

Examiner

A. M. Thompson

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-13,15-19 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-13,15-19 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's Amendment under 37 C.F.R. § 1.111 to 09/836,164, has been examined. The specification is amended. Claims 25-28 are added. Claims 1, 3, 7, 9, 13, 15, 19, and 21 are amended. Claims 1, 3-7, 9-13, 15-19, 21-28 are pending.

1. Applicant's Amendment is persuasive-in-part. The applicable rejections from the prior office action are incorporated herein. Additionally, a new ground of rejection, not entirely necessitated by Applicant's Amendment, has been added. Hence this second non-final action on the merits is required.

#### ***Specification***

2. Applicant's amended abstract is approved.

#### ***Claim Objections***

3. Claims 25-28 are objected to for the following reasons: Pursuant to claims 25-28, "The method" lacks sufficient antecedent basis. Pursuant to claim 28, it references "at least two adjacent sides of said possible error rectangle" without reciting, apriori, that the possible error rectangle is comprised of adjacent sides. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Rejection of claims 1, 3-7, 9-13, 15-19, 21-24**

5. Claims 1, 3-7, 9-13, 15-19, 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawakami et al., U.S. Patent 5,062,054. Kawakami teaches a layout pattern generation and geometric processing system for LSI circuits.

6. Pursuant to claim 1 which recites [a] process of testing spacing of wiring in a circuit (Abstract; Fig. 9, #36 illustrates a Spacing Check Unit) comprising forming a plurality of conductor rectangles representative of conductors of said circuit (col. 4, ll. 35-57); forming minimum spacing rectangles around said conductor rectangles (col. 4, ll. 58-64), said minimum spacing rectangles being larger than respective ones of said conductor rectangles (Fig. 12); identifying a possible rectangle when a first conductor rectangle of said conductor rectangles occupies a portion of a minimum spacing rectangle of a second conductor rectangle of said conductor rectangles (col. 4, line 65 to col. 5, line 50); checking whether said possible error rectangle is a true error (col. 6, ll. 17-46); and reporting said true errors (Fig. 9, #71; Fig. 11, #92; information is sent to an error file, col. 6, ll. 39-43).

7. Pursuant to claim 3, wherein said forming minimum spacing rectangles comprises forming said minimum spacing rectangles to have sides which are a minimum spacing design constraint distance from sides of respective ones of said conductor rectangles (see Figs. 6, 10; col. 4, line 40 to col. 5, line 31).

8. Pursuant to claim 4, wherein said conductors are within a single net (col. 2, line 60 to col. 3, line 15; col. 6, ll. 17-46).

9. Pursuant to claim 5, wherein said circuit comprises a plurality of nets and said process further includes checking for shorts between different ones of said nets (col. 9, line 55 to col. 10, line 32).

10. Pursuant to claim 6, further comprising dividing said possible error rectangle into at least two possible error rectangles if said possible error rectangle is partially covered by a third conductor of said conductors (col. 10, ll. 19-22; step 10).

11. Pursuant to claim 7, which recites [a] process of testing spacing of elements in a structure (Abstract; Fig. 9, #36 illustrates a Spacing Check Unit) comprising forming a plurality of element rectangles representative of elements of said structure (col. 4, ll. 35-57); forming minimum spacing rectangles around said element rectangles (col. 4, ll. 58-64), said minimum spacing rectangles being larger than respective ones of said element rectangles (Fig. 12); identifying a possible error rectangle when a first element rectangle of said element rectangles occupies a portion of a minimum spacing rectangle of a second element rectangle of said element rectangles (col. 4, line 65 to col. 5, line 50); checking whether said possible error rectangle is a true error (col. 6, ll. 17-46); and reporting said true errors (Fig. 9, #71; Fig. 11, #92; information is sent to an error file, col. 6, ll. 39-43).

12. Pursuant to claim 9, wherein said forming minimum spacing rectangles comprises forming said minimum spacing rectangles to have sides which are a minimum spacing design constraint distance from sides of respective ones of said element rectangles (see Figs. 6, 10; col. 4, line 40 to col. 5, line 31).

13. Pursuant to claim 10, wherein said elements are within a single net (col. 2, line 60 to col. 3, line 15; col. 6, ll. 17-46).

14. Pursuant to claim 11, wherein said structure comprises a plurality of nets and said process includes checking for shorts between different ones of said nets (col. 9, line 55 to col. 10, line 32).

15. Pursuant to claim 12, further comprising dividing said possible error rectangle into at least two possible error rectangles if said possible error rectangle is partially covered by a third element of said elements (col. 10, ll. 19-22; step 10).

16. Pursuant to claim 13, which recites [a] computer system for testing spacing of wiring in a circuit comprising a unit for forming a plurality of conductor rectangles representative of conductors of said circuit (Fig. 1, #11, 32; col. 4, ll. 35-57); a unit for forming minimum spacing rectangles around said conductor rectangles (Fig. 1, #33, 34; col. 4, ll. 58-64), a unit for identifying a possible error rectangle when a first conductor rectangle of said conductor rectangles occupies a portion of a minimum spacing rectangle of a second conductor rectangle of said conductor rectangles (Fig. 1, #36); a unit for checking whether said possible error rectangle is a true error (Fig. 9, #34-36); and a unit for reporting said true errors (Fig. 9, #71).

17. Pursuant to claim 15, wherein said unit for forming minimum spacing rectangles comprises a unit for forming said minimum spacing rectangles to have sides which are a minimum spacing design constraint distance from sides of respective ones of said conductor rectangles.

18. Pursuant to claim 16-18, it addresses the limitations already rejected in claims 4-6, supra, and therefore claims 16-18 are likewise rejected for the same reasons under this code section.

19. Pursuant to independent claim 19, this claim addresses the limitations already rejected in claim 1, and further includes the limitation of a computer program product (col. 4, ll. 4-8 and col. 1, ll. 47-50) comprises a program storage device readable by a computer system tangibly embodying a program of instructions. Kawakami includes this additional limitation and therefore claim 19 is rejected based on the same rejection rationale as claim 1.

20. Pursuant to claims 21-24, these claims address limitations already rejected by claims 3-6, supra, and are therefore likewise rejected for the same reasons under this code section.

### ***Double Patenting***

21. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. **Claims 1, 7, 13, 19, and 25-28** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6,301,689. Although the conflicting claims are not identical, they are not patentably distinct from each other because 1) the combination of application claims 1, 25-28 recite the same or equivalent limitations as the '689 patent claim 1. Application claim 7 recites the limitations of the '689 patent claim 2. Application claim 13 recites the limitations of the '689 patent claim 3. Application claim 19 recites the limitations of the '689 patent claim 4.

#### **Remarks**

23. Although Applicant's Amendment Remarks has clearly stated what the invention discloses, Applicants independent claims merely recite the steps of identifying, checking, and reporting. The details of these process steps are not included in the independent limitation. Kawakami also discloses the process steps of identifying (col. 6, lines 29-30), checking (col. 6, lines 30-33) and reporting (col. 6, lines 39-41). Kawakami's process of determination is the process of checking whether a true error exists for the identified adjacent rectangles. Kawakami's identified adjacent rectangles are the possible error rectangles. Applicant independent claims lack the limitations necessary to properly distinguish them from the Kawakami art. Therefore the prior rejections of claims 1, 3-7, 9-13, 15-19, 21-24 under 35 U.S.C. 102(e) as being anticipated by Kawakami is maintained.



**Conclusion**

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please the PTO-892 for a complete listing.

25. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to A.M. Thompson whose telephone number is (703) 305-7441. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 5:00 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (703) 308-1323.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956 or the Customer Service Center whose telephone number is (703)306-3329.

26. Responses to this action should be mailed to:

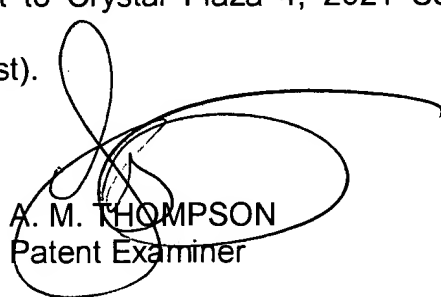
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or faxed to:

(703) 872-9318, (for **OFFICIAL** communications intended for entry)  
(703)872-9319, (for Official **AFTER-FINAL** communications)

Hand-delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

  
A. M. THOMPSON  
Patent Examiner

1 October 2003